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Chong, Jr.

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(54) **DATA STORAGE SYSTEMS AND PROCESSES, SUCH AS ONE-WAY DATA MIRROR USING WRITE MIRRORING**

(75) Inventor: **Fay Chong, Jr.**, Cupertino, CA (US)

(73) Assignee: **Sun Microsystems, Inc.**, Santa Clara, CA (US)

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(58) **Field of Classification Search** **711/161, 711/162**

See application file for complete search history.

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Primary Examiner—Woo H. Choi

(74) *Attorney, Agent, or Firm*—Blakely Sokoloff Taylor & Zafman LLP

(57) **ABSTRACT**

Methods and systems for data storage are described herein. In one aspect of the invention, an exemplary process includes receiving a first data being directed to a first storage volume, receiving a second data being directed to a second storage volume, writing the first data, as part of a first I/O (input/output) process which begins before a selected time, to a first storage image and a second storage image, the first storage image and the second storage image forming a data mirror prior to the selected time, wherein writes to one image are replicated to the other image, and writing the second data, as part of a second I/O process which begins after the selected time, to the second storage image but not to the first storage image, the second I/O process being capable of running while the first process runs. Other methods and apparatuses are also described.

34 Claims, 33 Drawing Sheets

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